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FIVE NEW GENERA OF ANTHURID ISOPOD CRUSTACEANS

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Abstract.—Three new genera and species of anthurid isopods are described, viz. *Heptanthura* and *Rhiganthura* from off New Zealand, and *Venezanthura* from Venezuela. *Cyathura siamensis* Barnard is transferred to the new genus *Caenanthura*, *Anthelura abyssorum* Norman & Stebbing is transferred to the new genus *Valoranthura*, and *Anthelura* Norman & Stebbing is redefined.

While preparing a generic revision of the isopod family Anthuridae, scattered samples from widely separate areas, often containing only 1 or 2 animals, were examined. The present paper provides descriptions of 5 new genera, prior to their inclusion in the aforementioned revision.

The specimen from Venezuela was collected by the Hancock Pacific Expedition of 1939. The 2 genera from off New Zealand were collected by the USRV *Eltanin* during the United States Antarctic Research Program, while the new genus from Thailand was collected by the Danish Theo Mortensen Expedition of 1900. The *Anthelura elongata* type material was collected by the British 'Porcupine' Expedition of 1870, while the type material of *Valoranthura* was collected by the British 'Valorous' Expedition of 1875.

Suborder ANTHURIDEA
Family Anthuridae
Heptanthura, new genus

Diagnosis.—Eyes present. Antennular flagellum of 2 articles, antennal flagellum of 6 articles. Mandibular palp 3-segmented; incisor, lacinia, and molar present. Maxilliped 7-segmented; endite lacking. Pereopod 1 subchelate, propodus expanded. Pereopods 2 and 3 smaller than 1, not subchelate. Pereopods 4–7, carpus triangular, underriding propodus. Pleopod 1 exopod operculiform. Pleonites 1–5 fused, 6 free. Telson lacking statocysts.

Type-species.—*Heptanthura novaezealandiae*, new species.

Gender.—Feminine.

Etymology.—The prefix 'hept' in the generic name refers to the seven segments of the maxilliped.

Remarks.—*Neohyssura* Amar and *Ocsanthura* Kensley possess a 7-segmented maxilliped, but the latter genus has rectangular rather than tri-

angular carpi of the posterior three pairs of pereopods. *Neohyssura* possesses a well developed maxillipedal endite, which is lacking in *Heptanthura*, while the first pair of pleopods are not operculiform as in the New Zealand genus.

Heptanthura novaezealandiae, new species
Figs. 1, 2

Description.—Female: Integument not indurate. Body proportions: C < 1 = 2 = 3 = 4 < 5 > 6 > 7. Cephalon with rounded anterolateral lobes extending beyond small triangular rostrum. Eyes present. Pleonites 1–5 fused, with grooves over dorsum indicating individual segments; pleonite 5 with concave posterior margin; pleonite 6 with deep middorsal incision in posterior margin. Telson with hyaline border; wider distally than proximally, margin distally serrate, evenly convex in outline, with several simple setae. Statocysts not apparent.

Antennule with 4-segmented peduncle, basal segment broadest and longest, fourth segment short, oblique; flagellum of 2 articles. Antenna with 5-segmented peduncle; flagellum of 5 or 6 short articles. Mandibular palp 3-segmented, middle segment longest; incisor broad, almost no indication of cusps; lacinia serrate; molar short and blunt. Lower lip complex with 2 short processes at apex of each lobe. Maxilla with single strong terminal spine and 6 smaller spines. Maxilliped 7-segmented, lacking endite; terminal segment very short, with 4 setae; second segment longest; third segment very short. Pereopod 1 unguis one-third length of dactylus, with short supplementary spine; propodus proximally broad, palm straight, unarmed; carpus short, triangular. Pereopod 2 prododus less robust than 1, with strong bipartite sensory spine at ventrodistal angle. Pereopods 4–7 carpus triangular, underriding propodus; latter and carpus each with strong bipartite sensory spine at ventrodistal angle. Pleopod 1 exopod and endopod operculiform; endopod slightly longer but narrower than exopod; both rami with numerous distal plumose; basis with 3 retinaculae. Uropodal exopod distally emarginate, forming slender dorsal apically bidentate dorsal part, with dorsal margin bearing numerous plumose setae, and broader rounded ventral part; endopod shorter than basis, almost reaching telsonic apex, broadly rounded, distal margin dentate, bearing simple setae; outer margin of basis with row of plumose setae.

Material.—Holotype, USNM 171227, ♀ TL 3.5 mm. Paratype USNM 171228, ♀ TL 3.5 mm. *Eltanin* cruise 19, station 1498, 37°32′S, 178°42′W 101 m (off North Island, New Zealand).

Etymology.—The species was collected close to New Zealand, hence the name.

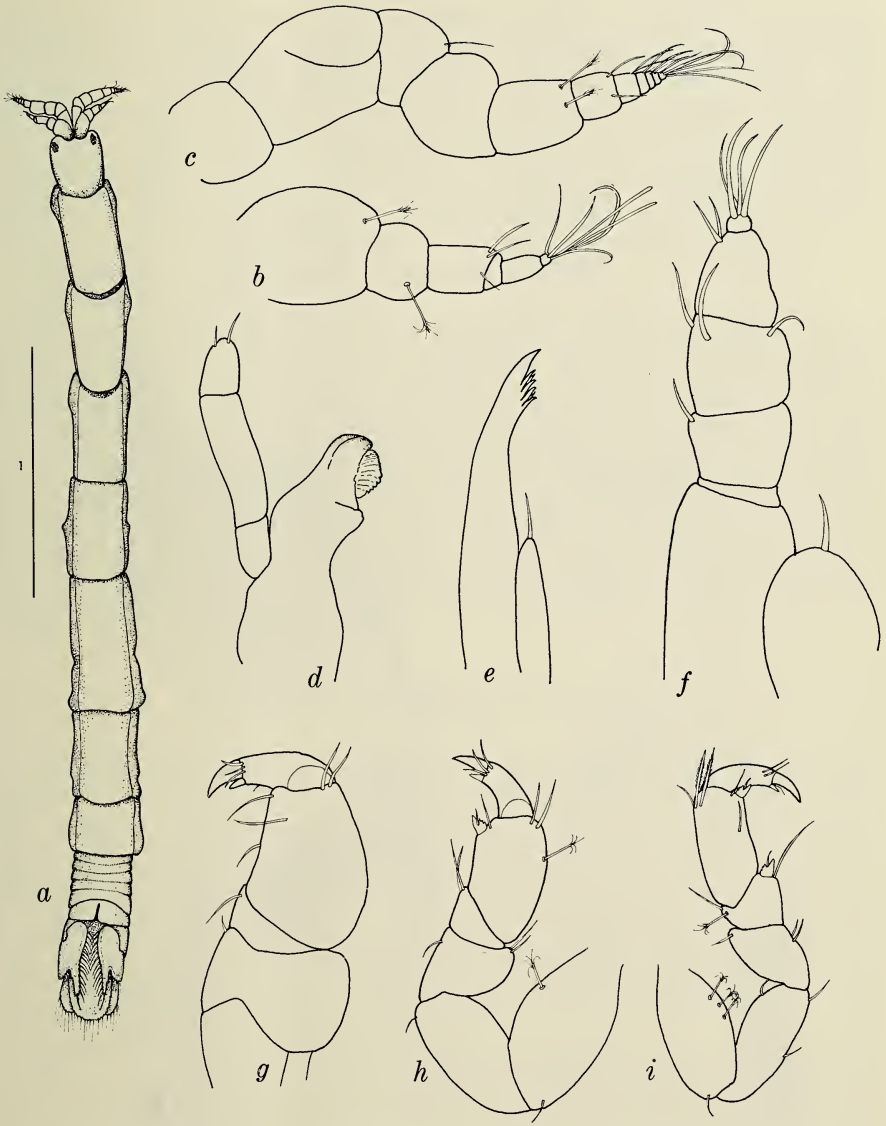

Fig. 1. *Heptanthura novaezealandiae*: a, Holotype in dorsal view; b, Antennule; c, Antenna; d, Mandible; e, Maxilla; f, Maxilliped; g, Pereopod 1; h, Pereopod 2; i, Pereopod 7.

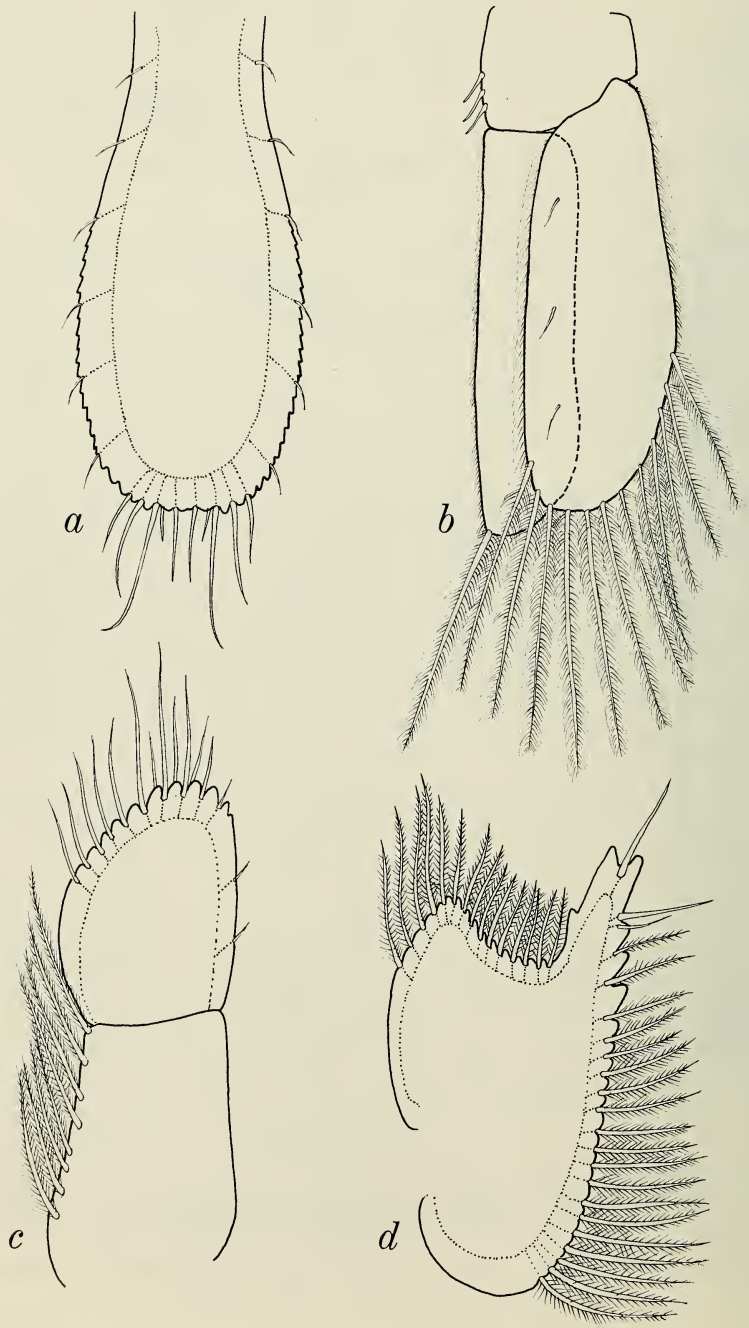

Fig. 2. *Heptanthura novaezealandiae*: a, Telson; b, Pleopod 1; c, Uropodial endopod and basis; d, Uropodial exopod.

Rhiganthura, new genus

Diagnosis.—Eyes present. Antennular flagellum of 4 articles. Antennal flagellum of 6 articles. Mandibular palp 2-segmented; incisor, molar, and lacinia present. Maxilliped 5-segmented, endite present. Pereopod 1 subchelate, propodus expanded. Pereopods 2 and 3 smaller than 1. Pereopods 4–7 with triangular carpus underriding propodus. Pleopod 1 endopod and exopod together forming operculum over branchial chamber. Pleonites 1–5 free, relatively short; pleonite 6 large, with deep middorsal excavation. Telson apparently lacking statocysts. Uropodal exopod bipartite.

Type-species.—*Rhiganthura spinosa*, new species.

Gender.—Feminine.

Etymology.—The generic name is derived from the Greek 'rhigos' meaning cold or frosty, alluding to the relatively cold water from which the specimens were taken, plus the commonly-used suffix 'anthura'—a flower.

Remarks.—The differences between *Rhiganthura* and *Venezanthura*, the only other anthurid with a 2-segmented mandibular palp, are discussed under the latter genus. A further distinguishing feature of *Rhiganthura* lies in the nature of the first pleopods, where both endopod and exopod together form the operculum over the remaining pleopods. This feature is seen to a limited degree in species of *Panathura* but is never as well developed as in the present material.

Rhiganthura spinosa, new species
Figs. 3, 4

Description.—Female: Integument, except for tail-fan, not indurate. Body proportions: $C < 1 = 2 < 3 = 4 = 5 > 6 > 7$. Cephalon with triangular rostrum extending well beyond rounded anterolateral corners; latter containing eyes. Pereonite 6 with 2 anterodorsal shallow pits. Pereonite 7 very short. Pleonites free, separate; pleonite 1 almost hidden by pereonite 7; pleonites 2–4 subequal, 5 slightly longer; 6 as long as 3 preceding segments, broader than rest of pleon, with deep middorsal excavation. Pleonites with dense ventrolateral plumose setae. Telson basally broad, tapering distally, margins spinose, moderately indurate.

Antennular peduncle 4-segmented, basal segment equal in length to 3 distal segments together; fourth segment very short; flagellum of 4 articles, basal article longest. Antennal peduncle 5-segmented, first and third segments short, subequal, segments 2, 4, and 5 somewhat longer; flagellum of 6 articles, basal article longest, entire flagellum equal in length to fifth peduncular segment. Mandibular palp of 2 subequal segments, distal segment with single fringed seta; incisor of 3 rounded cusps; lacinia with faint indications of few marginal serrations; molar bluntly triangular. Maxilla with strong distal spine and 5 or 6 smaller spines. Maxilliped 5-segmented, 3 distal segments subequal, distal segment rounded, with several simple

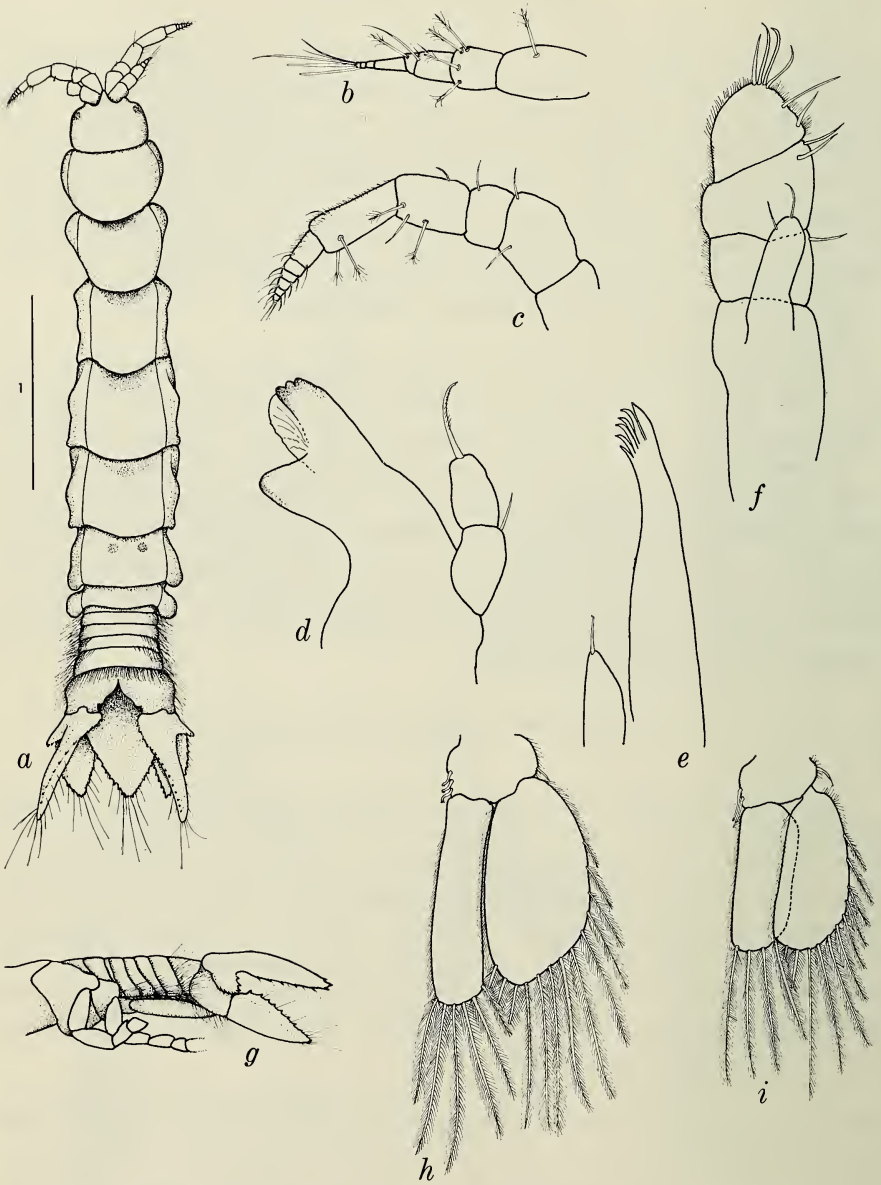

Fig. 3. *Rhiganthura spinosa*: a, Holotype in dorsal view; b, Antennule; c, Antenna; d, Mandible; e, Maxilla; f, Maxilliped; g, Pleon in lateral view; h, Pleopod 1; i, Pleopod 2.

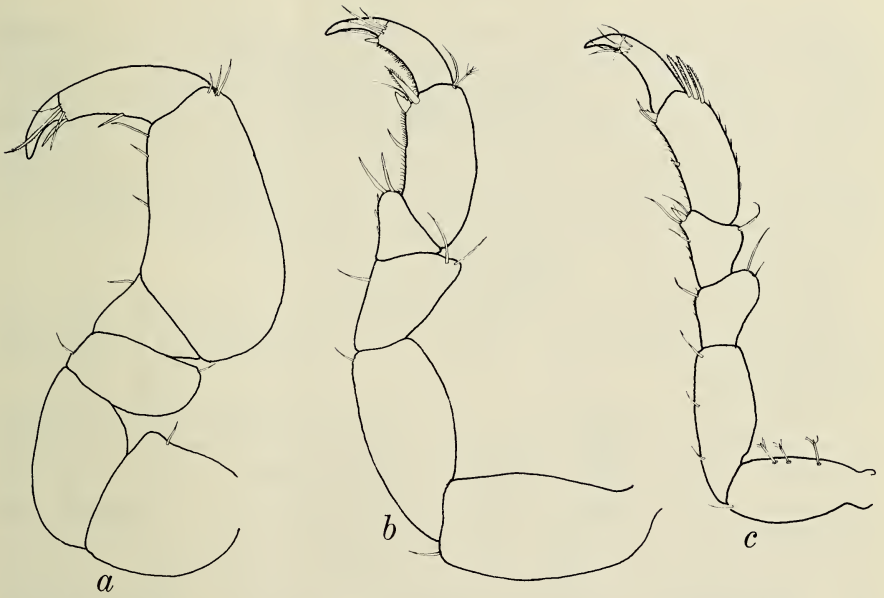

Fig. 4. *Rhiganthura spinosa*: a, Pereopod 1; b, Pereopod 2; c, Pereopod 7.

setae, second segment relatively elongate; delicate endite present, tipped with 2 setae. Pereopod 1 unguis one-third length of dactylus; propodus proximally broader than distally, palm almost straight, unarmed. Pereopod 2 unguis slightly more than half length of dactylus; propodus with 2 posterodistal spines; carpus triangular, with no free anterior margin. Pereopods 4–7 unguis half length of dactylus; propodus with 3 anterodistal fringed spines, single short ventrodistal spine; carpus triangular, with short anterior margin, short posterodistal spine. Pleopod 1 with exopod and endopod lying side by side, endopod slightly longer, together forming operculum; both rami with numerous elongate plumose setae; basis with 3 retinaculae. Pleopod 2 rami subequal. Uropod indurate, exopod dorsal, consisting of narrow dorsal section extending beyond telson, and short broad ventral part; both parts marginally spinose; endopod basally broad, tapering distally, margins spinose.

Material.—Holotype ♀ USNM 171229, TL 4.0 mm. Paratype ♀ USNM 171230, TL 3.7 mm; 2 juveniles, TL 1.8 mm. *Eltanin* cruise 19, station 1498, 37°32′S, 178°42′W, 101 m (off North Island, New Zealand).

Etymology.—The specific name refers to the spinose nature of the tail-fan.

Venezanthura, new genus

Diagnosis.—Eyes very small, weakly pigmented. Antennular and antennal flagella of one article. Basal antennular segment and second antennal segment interlocked. Mandibular palp 2-segmented. Maxilliped 3-segmented, with endite. Pereopod 1 subchelate, propodus expanded. Pereopods 2 and 3 smaller than 1, hardly subchelate. Pereopods 4–7 with short, roughly triangular carpus underriding propodus. Pleopod 1 exopod operculiform. Pleonites 1–5 fused, 6 free. Telson with 2 basal statocysts.

Type-species.—*Venezanthura confixa*, new species.

Gender.—Feminine.

Etymology.—The generic name is derived from Venezuela, where the specimen was collected, and 'anthura,' the frequently-used Greek suffix meaning a flower.

Remarks.—The combination of a 3-segmented maxilliped, a triangular carpus underriding the propodus in the posterior pereopods, and pleonites 1–5 fused, places this specimen close to the genus *Pendanthura*. The maxilliped of *Pendanthura*, with its lobe-like endite, is very similar to that of *Venezanthura*. Comparison of mandibular palps, however, easily separates the genera, *Pendanthura* having the mandibular palp reduced to one or two setae. *Rhiganthura*, described elsewhere in this paper, is the only other known anthurid possessing a 2-segmented mandibular palp, but is easily separated from *Venezanthura* by its 5-segmented maxilliped and free pleonites.

Venezanthura confixa, new species
Figs. 5, 6

Description.—Male: Integument and appendages indurate, brittle. Body proportions: $C < 1 > 2 > 3 = 4 = 5 < 6 > 7$. Cephalon with marked lateral keel; low rostrum separating antennal bases; eyes small, very faintly pigmented. Pleonites 1–5 fused, barely indicated ventrolaterally; pleonite 6 free. Telson strongly indurate, proximal two-thirds parallel-sided, distal third tapering to evenly rounded apex; proximally thickened, with rounded ridge between uropodal exopod bases, becoming distally flattened and thinner, with 2 proximal statocysts.

Basal antennular segment and second antennal segment firmly interlocked and forming flattened dorsal surface. Antennule situated slightly ventral to antenna; peduncle 4-segmented, second and third segments each with group of 6 elongate ventral setae; fourth segment short; flagellum of 1 very short article set obliquely in fourth peduncle segment, directed ventrally, bearing cluster of terminal filiform aesthetascs. Antennal peduncle 5-segmented, second segment longest; flagellum a single very short article bearing cluster of short setae. Mandibular palp 2-segmented, distal seg-

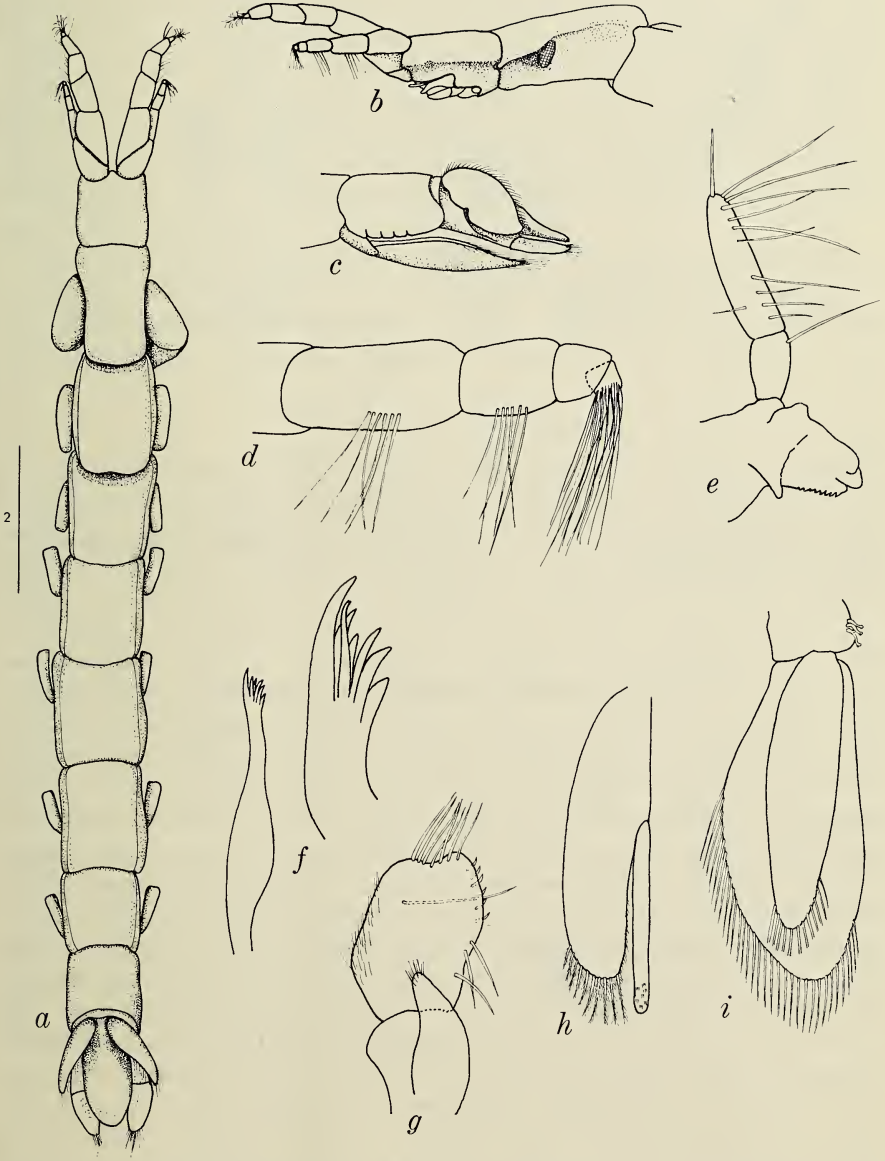

Fig. 5. *Venezanthura confixa*: a, Holotype in dorsal view; b, Cephalon in lateral view; c, Pleon in lateral view; d, Antennule; e, Mandible; f, Maxilla, with apex enlarged; g, Maxilliped; h, Pleopod 2 endopod; i, Pleopod 1.

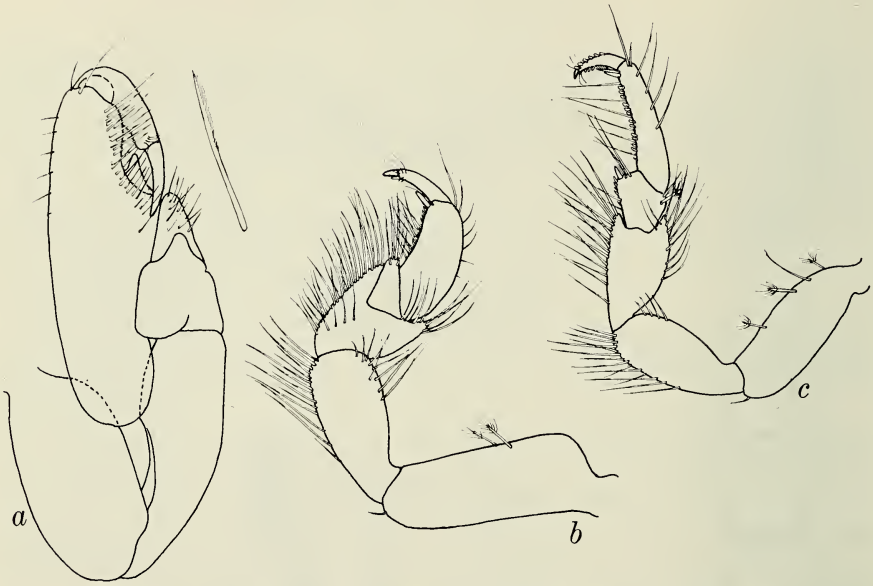

Fig. 6. *Venezanthura confixa*: a, Pereopod 1, with propodal spine enlarged; b, Pereopod 2; c, Pereopod 7.

ment twice length of first segment, bearing several elongate simple setae; molar process reduced to narrowly triangular process; lacinia of 8 or 9 serrations; incisor of 3 broadly rounded cusps. Maxilla slender, with 7 distal spines. Maxilliped 3-segmented, terminal segment broadest and longest, with 7 or 8 elongate distal setae and 6 short setae along median margin; thin-walled lobe-like endite present on inner surface, bearing a few fine distal setae. Pereopod 1 unguis almost half length of dactylus; propodus with pronounced posterior extension, palmar margin concave, armed with strong proximal digitiform tooth and numerous slender serrate spines; carpus short, triangular, bearing several simple setae. Pereopod 2 less robust than 1; unguis one-fifth length of dactylus with short spine; dactylus half length of propodus; latter curved, with strong posterodistal spine and several setae and very short spinules on posterior margin; carpus very short, triangular; carpus, merus, and ischium with numerous simple setae on posterior surfaces. Pereopods 5–7 with dactylus one-third length of propodus, unguis very short, anterior and posterior surfaces bearing short fringed scales; propodus with strong simple spine and fringed spine at posterodistal corner, posterior surface bearing 6 simple elongate setae and several short flattened fringed spines; carpus roughly pentagonal, anterior shorter than posterior margin, underriding propodus, with strong spine at posterodistal angle and few smaller spinules and several simple setae; merus and

ischum bearing numerous simple setae. Pleopod 1 exopod indurate, operculiform, with dense distal fringe of plumose setae; endopod half width of, and slightly shorter than exopod, with 12 distal setae; basis bearing 3 retinaculae. Pleopod 2 endopod with 10 plumose setae on distal margin, copulatory stylet on median margin articulating at midpoint of ramus, extending beyond ramus, simple rod-shaped, with groups of very fine setules distally, apically rounded. Uropodal exopod ovate, folding dorsally over telson, apically subacute, extending just beyond basis, margins bearing plumose setae; endopod distally rounded, bearing clump of setae, extending beyond telsonic apex.

Material.—Holotype ♂ USNM 171226, TL 13.4 mm. Cubagua Island, Venezuela; taken in 4–10 m from sand and algal bottom.

Etymology.—The specific name 'confixa' refers to the firmly interlocked first antennular and second antennal segments.

Caenanthura, new genus

Diagnosis.—Eyes absent. Antennular flagellum of 2 articles. Antennal flagellum of 1 article. Mandibular palp 1-segmented; incisor, lacinia, and molar present. Maxilliped 4-segmented, endite absent. Pereopod 1 subchelate, propodus expanded. Pereopods 2 and 3 smaller than 1, subchelate. Pereopods 4–7 carpi triangular, underriding propodi. Pleopod 1 exopod operculiform. Pleonites 1–5 fused, 6 free. Telson with 2 basal statocysts.

Type-species.—*Caenanthura siamensis* (Barnard), 1925.

Gender.—Feminine.

Etymology.—The generic name is derived from the Greek 'kainos' meaning new, and 'anthura' the commonly-used suffix meaning a flower.

Remarks.—Barnard (1925) placed the present material in *Cyathura* mainly because of the 4-segmented maxilliped and the triangular carpus of the posterior pereopods. He did not examine the mandible and so missed the distinctive 1-segmented palp. Two genera possess a 1-segmented mandibular palp, viz. *Pendanthura* and *Ptilanthura*, both of which, however, possess 3-segmented maxillipeds. Further differences include the presence of a maxillipedal endite in *Pendanthura*, and rectangular carpi of the posterior 3 pairs of pereopods in *Ptilanthura*.

Caenanthura siamensis (Barnard)
Fig. 7

Cyathura siamensis Barnard, 1925:140, pl. 4, fig. 6.—Nierstrasz, 1941:6.—Miller & Burbanck, 1961:66.

Description.—Female: Integument not indurate. Body proportions: C < 1 < 2 < 3 < 4 > 5 > 6 > 7. Cephalon lacking eyes; with very low

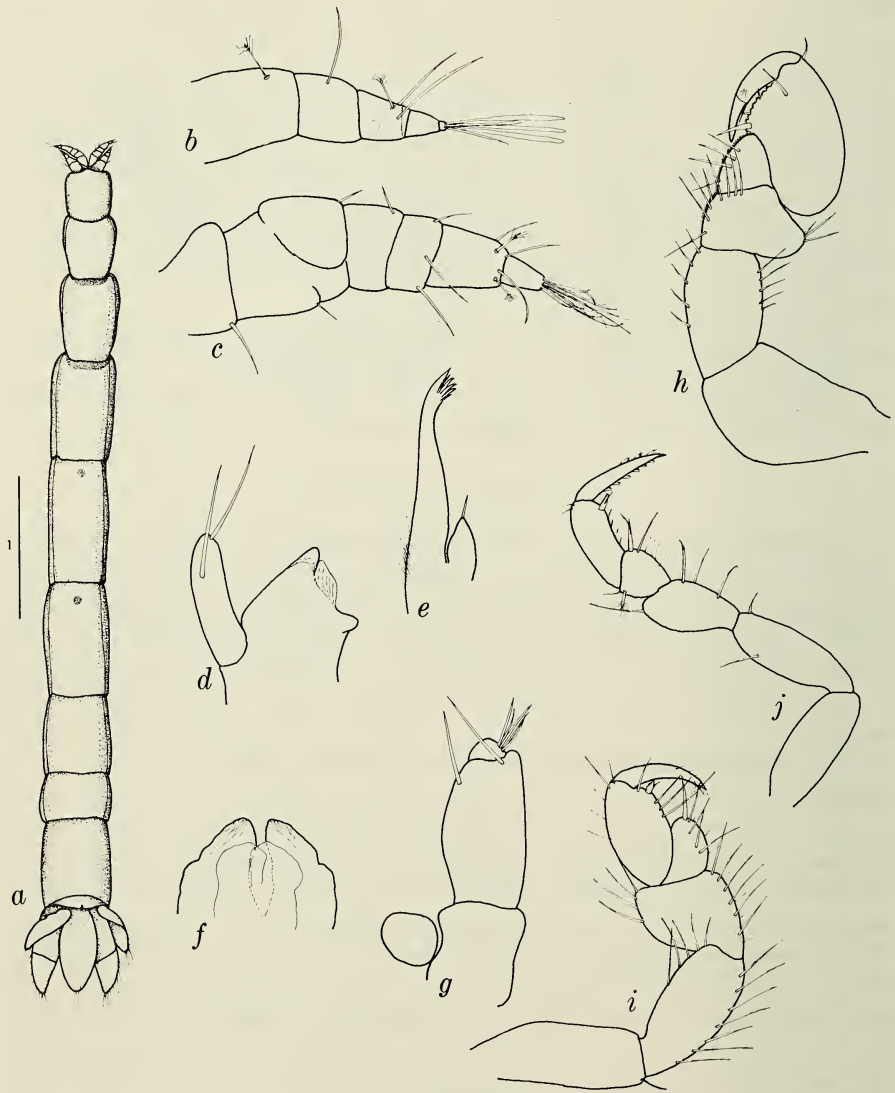

Fig. 7. *Caenanthura siamensis*: a, Lectotype in dorsal view; b, Antennule; c, Antenna; d, Mandible; e, Maxilla; f, Lower lip; g, Maxilliped; h, Pereopod 1; i, Pereopod 2; j, Pereopod 7.

rostrum. Pereonites 4 and 5 each with very shallow anterodorsal pit. Pleonites 1–5 fused, with no indication of segmentation dorsally, barely indicated ventrolaterally; pleonite 6 free, short, posterior margin with mediodorsal notch. Telson thin, dorsally flattened, lanceolate, apex nar-

rowly rounded, with 2 basal statocysts. Antennular peduncle 4-segmented, fourth segment very short, indistinct; flagellum of 2 articles, terminal article small, with 3 aesthetascs. Antennal peduncle 5-segmented, second segment longest, grooved to accommodate antennule; flagellum of single setose article. Mandibular palp of single segment, bearing 2 elongate simple setae; incisor of single rounded cusp; lacinia unserrated; molar small, bluntly rounded. Maxilla with 1 strong and 5 smaller apical spines. Maxilliped 4-segmented, terminal segment small, semicircular, with 4 or 5 simple setae; third segment basally slightly constricted. Pereopod 1 unguis about one-third length of dactylus; propodus basally broad, palm gently convex, faintly crenulated; carpus triangular, with 4 simple setae on posterior margin; merus with 7 or 8 simple setae on posterior margin. Pereopods 2 and 3 smaller but similar to 1; propodus with short posterodistal serrated sensory spine; posterior margin of carpus strongly convex; propodus, carpus, merus, ischium all with simple setae. Pereopods 4–7 unguis of dactylus very short; dactylus bearing fringed scales; propodus with posterodistal sensory spine; carpus roughly triangular, anterior margin shorter than posterior, slightly underriding propodus. Brood pouch formed by 3 pairs of oostegites on pereonites 3–5. Pleopod 1 exopod operculiform; endopod slightly shorter and about one-third width of exopod. Uropodal exopod just reaching to endopodal base; outer margin gently sinuous; endopod triangular, outer margin convex, apex narrowly rounded.

Material.—The type-series consists of 8 syntypes from the Copenhagen museum. A lectotype has now been chosen for this species. Lectotype ovig. ♀ TL 5.8 mm. Paralectotypes 7 ♀♀ TL 3.9–6.4 mm; Theo Mortensen Expedition, 1900; Koh Chang, Thailand, 6–10 m.

Anthelura Norman & Stebbing

Diagnosis.—Eyes absent. Antennular flagellum of 5–7 articles. Antennal flagellum of 11 articles. Mandibular palp 3-segmented; incisor, lacinia, and molar present. Maxilliped 5-segmented, endite present. Pereopods 1–3 subchelate, similar, pereopod 1 largest. Pereopods 4–7 carpi rectangular, not underriding propodi. Pleopod 1 exopod operculiform. Pleonites 1–6 free. Telson with 2 basal statocysts.

Type-species (by subsequent designation).—*Anthelura elongata* Norman & Stebbing, 1886.

Gender.—Feminine.

Material examined.—Syntypes, B.M. 1903.5.20.41–44, ♂ TL 18.2 mm, juv. 8.7 mm; *Porcupine* Expedition, off Portugal, 1,500 m. Syntypes, B.M. 1911.11.8.7543–7544, ♀ TL 13.8 mm juv. 7.0 mm; *Porcupine* Expedition, off Portugal, 1,590 m.

Remarks.—Norman & Stebbing (1886) described the new genus *Anthelura*

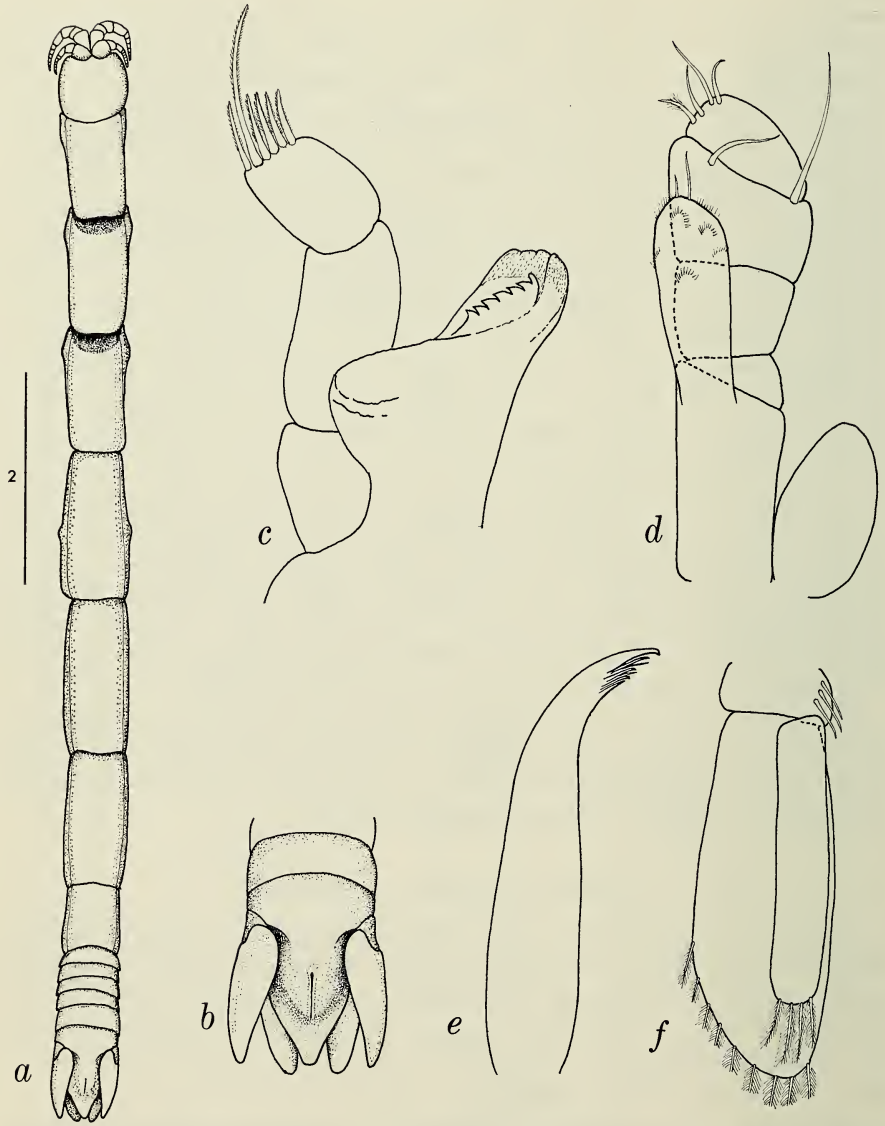

Fig. 8. *Valoranthura abyssorum*: a, Syntype ♀ in dorsal view; b, Telson further enlarged; c, Mandible; d, Maxilliped; e, Maxilla; f, Pleopod 1.

for 2 species, but designated neither as the type-species. Barnard (1925) described the new genus *Ananthura* for 2 new species, and transferred *Anthelura abyssorum* to *Ananthura*. Menzies (1962) designated *Anthelura elongata* as the type-species of the genus *Anthelura*, and *Ananthura sulcati-*

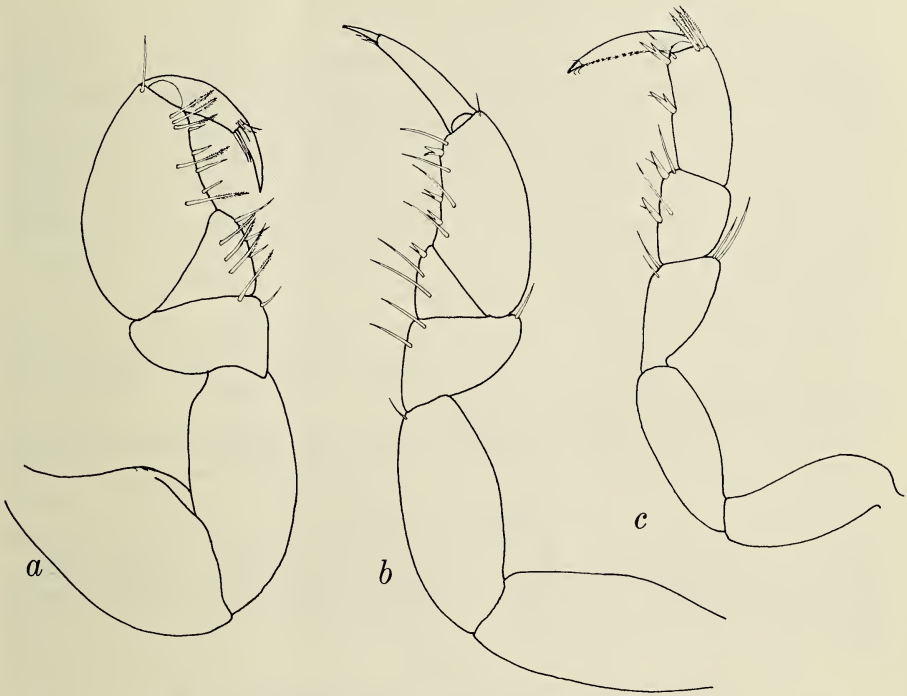

Fig. 9. *Valoranthura abyssorum*: a, Pereopod 1; b, Pereopod 2; c, Pereopod 7.

cauda as the type-species of the genus *Ananthura.* By the criteria used for generic separation in this work, and after examining both Norman & Stebbing's and Barnard's type material, no reason can be found to separate the 2 genera. As Norman and Stebbing's genus has priority, the genus *Ananthura* is suppressed, and *Anthelura elongata*, *Ananthura sulcaticauda*, and *Ananthura ovalis* are placed in *Anthelura.*

Anthelura abyssorum, because of the condition of the maxilliped and pleon, must be accommodated in a separate genus.

Bathura Schultz, 1966, agrees with all the criteria for *Anthelura* as redefined above. Schultz remarked that this deep-water Californian genus was most like *Ananthura*, but differed in "general pattern of peraeopodal hand with a tooth on palm, and characteristic pattern of setae on apex of telson and uropodal rami" (1966:12). However, when looking at the overall structure of all the pereopods, *B. luna* closely agrees with the species of *Anthelura,* while the telsonic and uropodal setal distribution is probably a specific feature. The telson of *B. luna* further possesses the proximal telsonic ridge seen in the species of *Anthelura*; thus *Bathura luna* is now regarded as a species of *Anthelura.*

Valoranthura, new genus

Diagnosis.—Eyes absent. Antennular flagellum of 6 articles. Antennal flagellum of 9 articles. Mandibular palp 3-segmented; molar, incisor, and lacinia present. Maxilliped 6-segmented; endite present. Pereopod 1 subchelate, propodus broadened proximally. Pereopods 2 and 3 subchelate, less robust than pereopod 1. Pereopods 4–7 carpi rectangular, not underriding propodi. Pleopod 1 exopod operculiform. Pleonites 1–5 free, pleonite 6 fused with telson.

Type-species.—*Valoranthura abyssorum* (Norman & Stebbing), 1886.

Gender.—Feminine.

Etymology.—The generic name is derived from H.M.S. *Valorous*, the ship used in the collection of the present material, plus 'anthura' the commonly-used suffix meaning a flower.

Remarks.—Amongst the anthurid genera, only *Quantanthura* Menzies & George possesses both a 6-segmented maxilliped and a rectangular carpus of the posterior 3 pairs of pereopods. *Quantanthura*, however, is characterized by having pleonites 1–5 fused, pleonite 6 free, and 2 basal telsonic statocysts, whereas *Valoranthura* has pleonites 1–5 free, and 6 indistinguishably fused with the telson, and lacks a pair of basal telsonic statocysts.

Valoranthura abyssorum (Norman & Stebbing)
Figs. 8, 9

Anthelura abyssorum Norman & Stebbing, 1886:127, pl. 27, fig. 2.—Hansen, 1887:181.—Richardson, 1900:215; 1901:508; 1905:69, fig. 54.

Ananthura abyssorum: Barnard, 1925:137.—Menzies, 1962:193, fig. 72B,C. —Schultz, 1969:101, fig. 138.

Description.—Female: Integument moderately indurate. Body proportions: C < 1 < 2 = 3 < 4 < 5 > 6 > 7. Cephalon lacking eyes; anterolateral corners rounded, not extending beyond low rostrum. Pereonites lacking middorsal pits. Pleonites 1–5 free, subequal; pleonite 6 fused with telson. Telson indurate, with strongly convex proximal area bearing fine middorsal longitudinal slit (possibly indicating the single opening of a statocyst), distolateral area flattened, apex rounded.

Antennular flagellum of 6 articles. Antennal flagellum of 9 articles. Mandible with 3-segmented palp, terminal segment broad, with 1 elongate and 5 short fringed spines; incisor broad, with faint indications of 4 cusps; lacinia with 7 serrations; molar broadly rounded. Maxilla with 1 strong and 6 smaller distal spines. Maxilliped 6-segmented, second segment longest, third segment wedge-shaped, terminal segment rounded, with 4 setae on mesial margin; endite well developed, broad, extending to penultimate

palpal segment. Pereopod 1 subchelate, unguis one-third length of dactylus; propodus proximally broad, palm gently concave, with few fringed and simple setae; carpus triangular, with few fringed setae on posterior margin. Pereopods 2 and 3 subchelate, unguis one-third length of dactylus; propodus with 3 short sensory spines on posterior margin; carpus triangular, with single short sensory spine. Pereopods 4–7, propodus with 2 strong bifid sensory spines on posterior margin, 3 fringed setae anterodistally; carpus roughly rectangular, with 2 posterior sensory spines, not underriding propodus. Pleopod 1 exopod operculiform; endopod shorter and narrower; basis with 3 retinaculae. Uropodal basis shorter than endopod, latter tapering to rounded apex; exopod triangular, basally broad, apically narrowly rounded.

Material.—Syntype, B.M. 1911.11.8.7545, ♀ TL 10.0 mm; Syntype B.M. 1903.5.20.40, ?♀ (cephalon & pleon missing); dredged by H.M.S. *Valorous*, entrance to Davis Straits, 59°10′N, 50°25′W, 3,500 m.

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